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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,227	07/02/2003	Thomas Fuhrmann	500585.20011	6233
26418	7590	07/25/2005	EXAMINER	
REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650			GEISEL, KARA E	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Sm

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/612,227		FUHRMANN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Kara E. Geisel		2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13, 14, 16, 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 15 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

Claims 15 and 17 are objected to because of the following informalities: minor typographical error, and confusing wording.

In regards to claim 15, line 4, it appears from reading claim 13, that the “second optical fiber having a first core diameter” should be changed to a --second optical fiber having a second core diameter--.

In regards to claim 17, line 4, it is not clear which first core diameter applicant is referring to (the first core diameter of the optical fiber in claim 17 or the first core diameter of the first coupling aperture in claim 13, on which 17 depends).

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 4, and 11-12, the phrase “in particular” renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

In regards to claims 11-12, lines 4-11, the coupling and/or decoupling apertures with the larger mode field diameter are formed with three different embodiments (formed by the fiber end of an optical fiber having a widened core diameter, formed by a spherical or aspherical fiber end of an optical fiber, and formed by an optical fiber end provided with a lens element), making it unclear how they are actually formed. It appears that the applicant wished to state these

Art Unit: 2877

limitations as a Markush group, in which case, it is suggested that the three different embodiments be preceded by --selected from the group consisting of--.

Claims, which are dependent from claims 1, 4, and 11-12 inherit the problems of these claims, and are therefore also rejected under 35 U.S.C. 112, second paragraph.

*Allowable Subject Matter*

Claims 13-14, 16, and 18-19 are allowed over the prior art of record.

Claims 1-12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 15 and 17 would be allowable if rewritten to overcome the objections forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical spectrometer comprising at least two coupling apertures with different mode field diameters, and at least two decoupling apertures on which dispersed light beams are each imaged and whose mode field diameters each correspond to the mode field diameters of the associated coupling apertures, in combination with the rest of the limitations of claim 1.

As to claim 13, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical spectrometer comprising a first coupling aperture having a first core diameter, and a second coupling aperture having a second core diameter that is larger than the first core diameter, in combination with the rest of the limitations of claim 13.

*Additional Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of record is Anderson (USPN 6,573,990), He et al. (USPN 6,636,306), and Solgaard et al. (US Pubs 2002/0061160).

Art Unit: 2877

Anderson discloses an optical spectrometer comprising at least two coupling apertures, means for dispersing light beams each exiting the coupling apertures along a dispersion axis, and at least two decoupling apertures on which the dispersed light beams are each imaged and whose diameters each correspond to the diameters of the apertures.

He discloses an optical spectrometer comprising at least two coupling apertures, means for dispersing light beams each exiting the coupling apertures along a dispersion axis, and at least two decoupling apertures on which the dispersed light beams are each imaged and whose diameters each correspond to the diameters of the apertures.

Solgaard discloses an optical spectrometer comprising at least two coupling apertures, means for dispersing light beams each exiting the coupling apertures along a dispersion axis, and at least two decoupling apertures on which the dispersed light beams are each imaged and whose diameters each correspond to the diameters of the apertures, wherein one output aperture is associated with an optical output, and one is associated with a detector.

### *Conclusion*

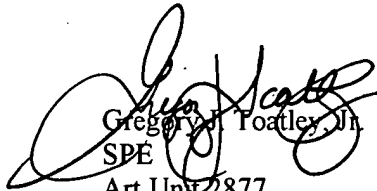
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is 571 272 2416. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571 272 2800 ext. 77. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9306 for regular communications and 703 872 9306 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2877

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gregory D. Toatley, Jr.  
SPE  
Art Unit 2877  
20 FEB '05

K.G  
KEG  
July 18, 2005